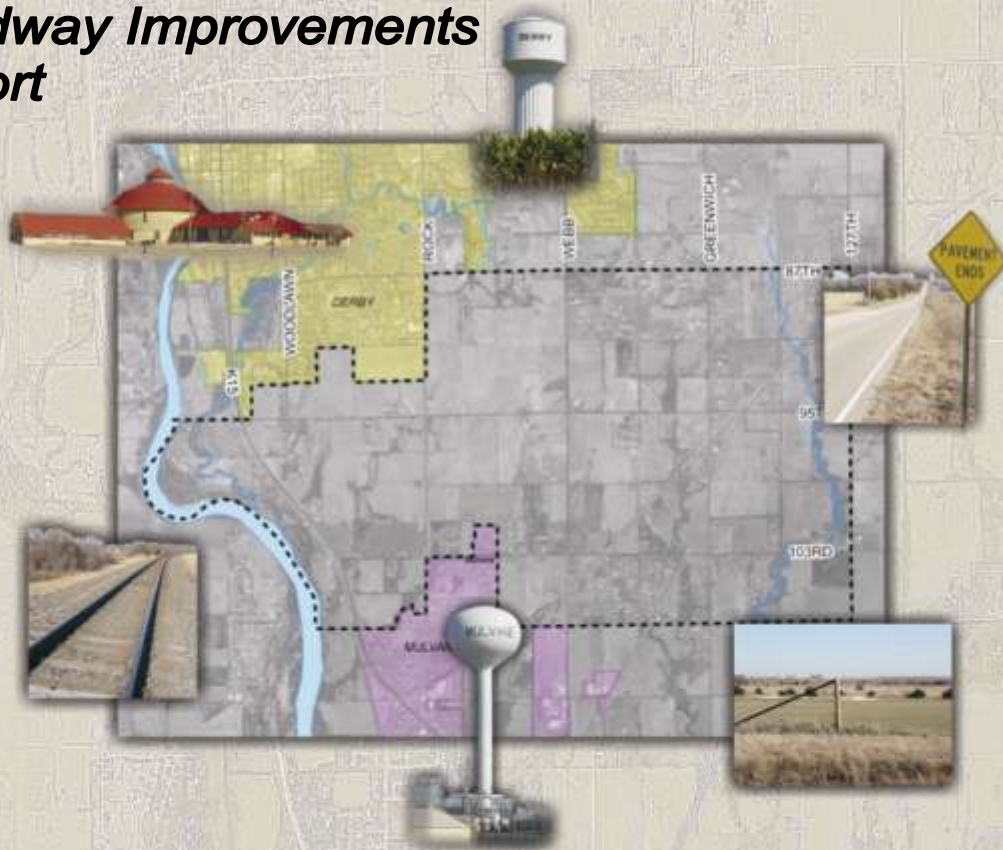


DERBY-MULVANE JOINT AREA PLAN

Appendix G: Recommended Future Roadway Improvements Report

2010-2030



MAY 2010



Introduction

During the development of the Derby-Mulvane Joint Area Plan the Steering Committee and Technical Advisory Committee reviewed the recommended roadway improvements identified in the Wichita Area Metropolitan Planning Organization South Area Transportation Study (SATS). During the review, many detailed questions arose and were addressed by both County and WAMPO staff. This report has been created as a summary of the details that were addressed during the project review, but are not included in the Derby-Mulvane Joint Area Plan document.

This report does not intend to replace the information or recommendations provided in the WAMPO SATS document, rather it is a separate document created by the Derby-Mulvane Joint Area Plan Steering Committee to suggest the recommended sequence, potential costs, lead organization, and estimated time necessary to complete each of the actions.

Roadway Improvements Descriptions

The WAMPO Policy Body approved the SATS on April 8, 2008. The study reviewed the existing transportation roadway infrastructure and provided recommendations for future improvements within the area generally bounded by Kellogg (US 54) on the north; Meadowlark Road to the east; 263rd Street to the west; and the Ninnescah River, Butler County line, and Mulvane City limits to the south. Based on the projections for future use and cost effectiveness of projects, the WAMPO SATS recommended the development of a new bridge across the Arkansas River and creation of four-lane semi-access controlled major arterial loop approximately 150 feet-wide along Greenwich Road and 95th Street South.

The two lane bridge crossing the Arkansas River is the highest priority SATS project to the Derby-Mulvane plan area because the WAMPO SATS analysis predicts that all existing east-west bridges over the Arkansas River near the Derby-Mulvane plan area will be overcapacity before the year 2030. The location of the bridge along 95th Street South is preferred over 103rd Street location because the angle of the river requires a longer bridge span at the 103rd Street location when compared to the 95th Street location. The shorter span at 95th Street South results in lower costs for designing and constructing the bridge.

The initial construction of a two-lane bridge, rather than a four-lane bridge, reduces the initial construction costs and allows for greater flexibility for maintenance. With two separate two-lane bridges, maintenance is enhanced because one of the bridge spans can be closed while traffic is diverted to the other span. The initial study of the bridge should identify whether grade separation at K-15 and the railroad corridor is preferred and how it might be accomplished. In addition to the bridge construction, roadway improvements are necessary to connect the proposed bridge location to Hillside Avenue west of the Arkansas River.

The second priority SATS roadway improvement project for the Derby-Mulvane plan area is the construction of a four-lane, semi-access controlled major arterial loop. The loop is recommended as a long-term transportation enhancement to ensure efficient and effective transportation infrastructure for both local and regional commutes, further explained in the SATS document.

Funds for the SATS recommended roadway improvement projects are not currently secured. The Steering Committee suggests that Derby and Mulvane partner with Sedgwick County both to contribute funding; and to secure regional, State, and Federal funding. A coalition of local government funding partners reduces the high costs for a single organization and shows significant commitment to a project. A coalition of funding partners can also greatly increase the odds of being awarded funding through a competitive application process.

Related Policy Recommendations

In order to preserve the ability to implement the arterial loop parkway recommended in the SATS document, the Steering Committee recommends that the Derby and Mulvane subdivision regulations be changed to require the appropriate dedication of rights-of-way during the platting process to allow for the construction of the 150 foot wide arterial loop parkway along 95th Street and Greenwich Road. The City of Mulvane subdivision regulations generally require dedication of 80 feet in width for arterials not shown in the Mulvane Comprehensive Plan (Greenwich and 95th are not identified in the Mulvane Comprehensive Plan) and rights of way dedications of 80 – 100 feet in width for arterials shown in the Mulvane Comprehensive Plan, per Article 107. The City of Derby subdivision regulations generally requires rights of way dedications totaling 120 feet in width for arterial streets (all section line roads are considered arterial streets), per Article 602.B.

Actions Listing

Action	Lead Organization	Estimated Time to Complete	Estimated Costs (2010 dollars)
Update the subdivision regulations to require the appropriate dedication of rights-of-way during the platting process to allow for the construction of the recommended 150 foot wide arterial loop parkway.	City of Derby	One year	None
Update the subdivision regulations to require the appropriate dedication of rights-of-way during the platting process to allow for the construction of the recommended 150 foot wide arterial loop parkway.	City of Mulvane	One year	None
Apply for portions of 95 th Street South and Greenwich Road to be classified as arterials on the WAMPO Federal Classification Map	Sedgwick County, Public Works	One year	None
Perform an engineering concept study for the	Sedgwick	Two years	\$3,730,000 ¹

¹ Calculated as 5 percent of the construction costs

Arkansas River Bridge, 95 th Street, and Greenwich Road parkway improvements	County, Public Works		
Arkansas River Bridge – Develop engineering design documents for both two-lane bridges over the Arkansas River from K-15 to Bluff Street; and paved roadway to Hillside Avenue	Sedgwick County, Public Works	One year	\$2,600,000 ²
Arkansas River Bridge – Apply for WAMPO Transportation Improvement Funding	Sedgwick County, Public Works	One year	None
Arkansas River Bridge - Acquire ROW and relocate utilities	Sedgwick County, Public Works	One year	2,270,000 ³
Arkansas River Bridge - Construct a two-lane bridge over the Arkansas River from K-15 to Bluff Street, and paved roadway to Hillside Avenue	Sedgwick County, Public Works	One year	\$13,500,000 ⁴
95th Street South – K-15 to Greenwich, develop preliminary engineering design documents for a four-lane urban parkway	Sedgwick County, Public Works	One year	Unknown
95th Street South – Apply for WAMPO Transportation Improvement Funding	Sedgwick County, Public Works	One year	None
95th Street South - K-15 to Greenwich Road, acquire ROW and relocate utilities	Sedgwick County, Public Works	One year	\$3,405,000 ⁵
95th Street South - Reconstruct 95 th Street	Sedgwick	One year	\$24,300,000 ⁶

² Source: 2030 WAMPO Metropolitan Transportation Plan 2035 project application submitted December 2009

³ Source: 2030 WAMPO Metropolitan Transportation Plan 2035 project application submitted December 2009

⁴ Calculated as 50 percent of the construction costs from the 2030 WAMPO Metropolitan Transportation Plan 2035 project application submitted December 2009

⁵ Source: 2030 WAMPO Metropolitan Transportation Plan 2035 project application submitted December 2009

South as a four-lane urban parkway from K-15 to Greenwich Road	County, Public Works		
Greenwich Road – develop engineering design documents for a four-lane urban parkway from 71 st Street to 95 th Street	Sedgwick County, Public Works	One year	3,900,000 ⁷
Greenwich Road - Apply for WAMPO Transportation Improvement Funding	Sedgwick County, Public Works	One year	None
Greenwich Road –71 st Street to 95 th Street, acquire ROW and relocate utilities	Sedgwick County, Public Works	One year	\$3,405,000 ⁸
Greenwich Road - Reconstruct as a four-lane urban parkway from 71 st Street to 95 th Street	Sedgwick County, Public Works	One year	\$24,300,000 ⁹
95th Street South - Construct a second two-lane bridge over the Arkansas River from K-15 to Bluff Street.	Sedgwick County, Public Works	One year	\$13,500,000 ¹⁰

⁶ Source: 2030 WAMPO Metropolitan Transportation Plan 2035 project application submitted December 2009

⁷ Source: 2030 WAMPO Metropolitan Transportation Plan 2035 project application submitted December 2009

⁸ Source: 2030 WAMPO Metropolitan Transportation Plan 2035 project application submitted December 2009

⁹ Source: 2030 WAMPO Metropolitan Transportation Plan 2035 project application submitted December 2009

¹⁰ Calculated as 50 percent of the construction costs from the 2030 WAMPO Metropolitan Transportation Plan 2035 project application submitted December 2009